First Grade Math Expectations – First Quarter

**Dear Parents,**

Your child is beginning an exciting year in math.

For the next several weeks, your child will be answering the questions: *How do I relate counting to addition and subtraction? How do I tell and write time in hours using analog clocks? How do I interpret data from a graph? How do I use multiple copies of a shorter object to measure a longer one? How do I use tens and ones to represent a two-digit number? What is place value? How do I compare numbers using greater than, less than, and equal to?*

Your child will learn the following:

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| Represent and solve problems involving addition and subtraction. |
| * Students will use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. * Students will solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. |
| Understand and apply properties of operations and the relationship between addition and subtraction. |
| * Students will apply properties of operations as strategies to add and subtract.2 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* * Students will understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. Add and subtract within 20.* |
| Add and subtract within 20. |
| * Students will relate counting to addition and subtraction (e.g., by counting on 2 to add 2). * Students will add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). |
| Work with addition and subtraction equations. |
| * Students will understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2. * Students will determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = \_ – 3, 6 + 6 = \_.* |
| Measure lengths indirectly and by iterating length units. |
| Students will express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. |
| Tell and write time. |
| Students will tell and write time in hours and half-hours using analog and digital clocks. |
| Represent and interpret data. |
| Students will organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. |
| Extend the counting sequence. |
| Students will count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. |
| Understand place value. |
| * Students will understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a “ten and the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. * Students will compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. * Use place value understanding and properties of operations to add and subtract. * Students will add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Students will understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. |

Batesville Public Schools 7/30/12